Part 8 · Number Search & Magic Square

Work out each answer below, then find it hidden in the digit grid — across, down, diagonally or backwards.

1. Area (cm²) of a quadrant of radius 14 cm, π = 22/7
2. Circumference (cm) of a circle of radius 7 cm, π = 22/7
3. Area (cm²) of a circle of radius 14 cm, π = 22/7
4. Area (cm²) of a semicircle of radius 7 cm, π = 22/7
5. Circumference (cm) of a circle of radius 21 cm, π = 22/7
6. Area (cm²) of a 60° sector of radius 21 cm, π = 22/7
7. Area (cm²) of a circle of radius 21 cm, π = 22/7
8. Area (cm²) of a 120° sector of radius 21 cm, π = 22/7
9. Circumference (cm) of a circle of radius 14 cm, π = 22/7
10. Square of the radius, when radius is 5 cm

2	4	5	1	2	6	8	2	9	6	8	2	9
6	5	9	8	8	3	3	4	6	3	6	7	0
7	7	0	6	0	9	5	7	5	2	8	0	7
8	9	0	4	0	4	5	5	5	9	4	0	7
2	2	0	6	4	2	0	4	6	8	8	3	2
9	0	1	0	4	6	1	6	5	1	3	8	6
3	2	9	3	0	9	4	8	2	0	1	1	2
7	8	2	1	7	2	8	6	8	6	2	3	9
6	8	6	3	6	2	1	0	2	2	3	2	2
0	0	7	1	0	9	4	9	3	3	5	5	7
6	6	8	6	2	6	7	7	5	1	5	4	4
6	3	6	9	0	7	8	6	1	6	1	6	0
1	4	8	0	0	1	0	2	7	3	0	2	0

☐ 1386	☐ 154	☐ 616	☐ 132	☐ 231
☐ 462	☐ 44	☐ 77	☐ 88	☐ 25

Magic Square — every row, column and diagonal adds to the same total.

A 3×3 grid using the consecutive integers 1–9, one per box, every row, column and diagonal summing to the same magic constant.

8	**1**	
	5	**7**
		2

Magic constant: 15. Fill the empty cells.

Every pizza slice, brooch, umbrella panel and racetrack in this chapter is just a fraction of a circle — find the angle, apply the fraction, and the area follows. □□